

ing shorelines. On the whole, however, such substances will not in fact be removable and so are properly designated as "not actually removable." Since Congress has in essence defined oil as removable, it is logical to define substances with oil-like physical characteristics as removable.

As noted previously in the Preamble to this Part 117 some substances have been described as oil-like on the basis of similarity in behavior to oil when discharged to water, i.e., limited solubility, less dense than water, and relatively cohesive mass. The Act defines oil in narrative form but left to the Agency the responsibility for designating and therefore, defining hazardous substances. The Agency defined hazardous substances in Part 116 on the basis of toxicological effects. For Part 117 the Agency developed a rationale to distinguish between oils and oil-like hazardous substances. That rationale is as follows:

I. If the substance is petroleum derived and:

A. If it has a defined chemical structure, it is a candidate hazardous substance.

B. If the substance's chemical structure is not defined and if it contains both:

1. mixtures of isomers, and
2. Members of a homologous series, i.e., series of organic compounds with members differing from successive members by increments of CH₂, the substance is classified as a petroleum oil and is not covered by these regulations.

II. If the substance is non-petroleum derived and:

A. If it is not an organic solvent extractable, it is a candidate hazardous substance.

B. If it is organic solvent extractable and:

1. If it has a defined chemical structure, it is a candidate hazardous substance.

2. If the substance's chemical structure is not defined and if it contains both:

- (a) mixtures of isomers, and
- (b) member of a homologous series, the substance is covered by these regulations.

On the basis of the foregoing, the ten oil-like substances previously identified have been determined to be removable hazardous substances.

The proposed regulation, under §117.3, made the determination that discharges of substances that are not actually removable are nonetheless subject to damage mitigation actions taken under Section 311(c). Section 57 of the Clean Water Act (Pub. L. 95-217) provides (in new section 311(b)(2)(B)(v)) that the Administrator may act to mitigate the damage caused by discharges of nonremovable hazardous substances and that the

cost of such mitigation is to be deemed a cost incurred under Section 311(c) and thus recoverable from the responsible person under sections 311 (f) or (g).

3. Guidelines for Mitigation:

Several commenters addressed the need for guidelines on methods and procedures for removal or mitigation of discharges of hazardous substances.

Section 311(j)(1)(A) requires the promulgation of removal regulations. These regulations will be developed in cooperation with the U.S. Coast Guard. Until such time as those regulations are promulgated, appropriate damage mitigation actions are those reasonable steps taken to contain, neutralize, and remove the substance or other actions to protect the public health or welfare. The general pattern of operational response action is specified in the National Oil and Hazardous Substances Contingency Plan (40 CFR 1510.40). To insure that such actions are appropriate, the response plan should be carried out in consultation with and approval of the On-Scene Coordinator as defined in 40 CFR 1510.36.

4. Definition of Mixture:

It was suggested that the definition of mixture is too simplistic because it fails to recognize that the interactions of the two or more substances could produce a third substance more or less toxic than either of the substances being combined.

If two or more substances are chemically combined to form a non-hazardous substance, which is then discharged, there is no violation of section 311, but there may be violation of other sections of the Act or of other laws such as the Resource Conservation and Recovery Act. On the other hand if such substances combine to form a hazardous substance there is a violation of section 311. Further, if a hazardous substance is discharged followed by a discharge of another substance which renders the first substance harmless, the violation of section 311 caused by the first discharge is not obviated by the discharge of the second substance. However, mitigation efforts may be considered by the Administrator in determining which penalty to apply, as provided in Part 119.

Dated: March 3, 1978.

DOUGLAS M. COSTLE,
Administrator.

Part 117 is added as follows:

- Sec.
- 117.1 Applicability.
 - 117.2 Definitions.
 - 117.3 Determination of actual removability.

AUTHORITY: Secs. 311 and 501(a), Federal Water Pollution Control Act, (33 U.S.C. 1251 et seq.).

§ 117.1 Applicability.

This regulation makes a determination under section 311(b)(2)(B)(i) of

the Federal Water Pollution Control Act (the Act) as to the actual removability of substances designated under section 311(b)(2)(A). This regulation applies to substances designated as hazardous under 40 CFR part 116.

§ 117.2 Definitions.

Terms used in this part shall have the meanings as stated in 40 CFR part 116 and as indicated below:

"Mixture" means any combination of two or more elements and/or compounds in solid, liquid or gaseous form except where such substances have undergone a chemical reaction so as to become inseparable by physical means.

"Remove" or "removal" refers to removal of the oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

"Actually be removed" means the separation and isolation of discharged hazardous substances from the waters by chemical, physical, or biological means.

§ 117.3 Determination of actual removability.

It is determined that the following substances designated as hazardous under 40 CFR part 116 can actually be removed: Allyl chloride, amyl acetate, benzene, cyclohexane, ethylbenzene, isoprene, methyl methacrylate, styrene, toluene, xylene. All other elements, compounds or their structural isomers, or mixtures thereof designated as hazardous substances under 40 CFR part 116 are determined to be not actually removable. The determination that certain designated substances cannot actually be removed by chemical, physical, or biological means does not relieve the discharger or third party from damage mitigation liabilities under sections 311(f) and 311(g) of the Act.

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[6560-01]

[FRL 829-4]

PART 118—DETERMINATION OF HARMFUL QUANTITIES FOR HAZARDOUS SUBSTANCES

AGENCY: Environmental Protection Agency.

ACTION: Final rulemaking.

SUMMARY: This regulation establishes new rules for the determinations of harmful quantities of hazardous substances, as required by a provision of the Federal Water Pollution

Control Act. This regulation should be read in conjunction with other new regulations for hazardous substances, which are also being promulgated today in this same separate part of the FEDERAL REGISTER, and which designate hazardous substances, removability, and rates of penalty.

EFFECTIVE DATES: June 12, 1978, except for vessels. The effective date for vessels is September 11, 1978.

FOR FURTHER INFORMATION CONTACT:

Kenneth M. Mackenthun, Director, Criteria and Standards Division (WH-585), Office of Water and Hazardous Materials, U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460 (phone: 202-755-0100).

SUPPLEMENTARY INFORMATION:

The Administrator of the Environmental Protection Agency proposed in the FEDERAL REGISTER of December 30, 1975 (40 FR 59982), to create a new part 118 in title 40 of the code of Federal Regulations which made a determination of harmful quantities under section 311(b)(4) of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) (the Act), for substances designated under section 311(b)(2)(A) of that Act. At the same time the designation of hazardous substances, determination of actual removability, and establishment of units of measurement and penalty rates were also proposed as parts 116, 117, and 119 respectively. Final promulgation of those regulations is concurrent with this rulemaking.

Method for determining harmful quantities. The December 30, 1975, proposal (40 FR 59982-89) described a procedure developed for determining harmful quantities based on a hazardous material classification system found in Annex II of the International Conference on Marine Pollution, 1973, which was submitted by the Intergovernmental Maritime Consultative Organization (IMCO) to member nations for adoption. The Agency indicated that a number of modifications to the basic IMCO system were required to satisfy the requirements of section 311. The modifications required were then used by the Agency in developing the table described at 40 FR 59988 as Table I, EPA Guidelines for Categorizing Hazardous Materials, which was to be used in conjunction with acute toxicity in determining harmful quantities.

Since the December 30, 1975, proposal, the Agency has reevaluated the use and appropriateness of the modified IMCO guidelines for categorizing hazardous substances. It was found that the IMCO guidelines and the proposed modifications to them required various subjective judgments, and relied, to some extent, on rather ill-defined ef-

fects such as biochemical oxygen demand, reduction of amenities, and the tainting of seafood. Further, these effects were not utilized in the proposed determination of harmful quantities. Therefore, this final rulemaking simplifies the categorization process to employ only the acute aquatic toxicity of the designated substances in deriving the harmful quantity categories. A result of this simplification is that substances for which no acute toxicity data are available are not categorized. As explained in the preamble to part 116 published elsewhere in this issue of the FEDERAL REGISTER, only two substances, adiponitrile and acetone cyanohydrin were proposed solely because of toxicological effects other than aquatic. Since that time, aquatic toxicity data for acetone cyanohydrin which support its final designation have become available. No similar supporting data for adiponitrile have become available and that substance was deleted from the final listing of hazardous substances. Although not used in the present rulemaking action, part 116 adopts selection criteria dealing with acute toxic effects to mammals and plants. At such time that those or other selection criteria are utilized for the designation of hazardous substances, this simplified system for categorizing substances according to their relative potential for harm will be supplemented.

Toxicological data for individual substances used in determining harmful quantities were derived from the compendium of information fact sheets entitled, Hazardous Substances Facts Sheets, 1977, which are available from the Environmental Protection Agency. In addition, other primary sources of data were: Water Quality Criteria Federal Water Pollution Control Administration, 1968, Water Quality Criteria 1972, EPA, March 1973, and quality Criteria for Water, EPA 440/9-76-023, July 1976.

Comments. Interested persons were given until March 1, 1976, to submit written comments concerning all aspects of the proposed rules. Each of the comments received has been carefully considered in adopting the final rules which are promulgated at this time.

1. *Special waters.* Many comment letters addressed the definition of Special Waters and the proposed determination that any quantity of a designated substance discharged to these waters constituted a harmful quantity. A majority of those commenting on this point believed the proposal lacked adequate definition or justification and would not result in a workable approach.

Special waters were proposed to be defined as those waters which are: (1) Drinking water reservoirs; (2) part of a designated National Wildlife Refuge

System; or part of a designated National Forest Wilderness, a designated National Park System, or a designated National Wilderness Preserve System.

It was argued that the term "any quantity" was vague, and that the criminal nature of penalties for failure to notify demanded a definitive measure of a violation. It was also pointed out that the boundaries of waters proposed as special waters were neither clearly defined nor marked in such a way that the person responsible for giving notice could instantly recognize or differentiate between various waters. Thus, this lack of definition placed an additional and unfair burden on potential dischargers. It was further argued that the proposed harmful quantities were of such a magnitude that they provided an adequate level of protection for all waters.

On the other hand, several commenters suggested that the definition of "special waters" should be expanded to include State and locally defined parks and wildlife areas, tributaries to National wildlife refuges, forests, wildernesses and parks, and sources of drinking water in addition to reservoirs.

After review of the practical and legal implications of the proposed approach, the Agency is in agreement with the position that because of the criminal nature of penalties for failure to provide notice under section 311(b)(5), the lack of easily discernible marked boundaries for special waters makes the proposed approach impractical. The Agency further believes that the magnitude of quantities proposed as harmful and adopted by this rulemaking provide meaningful protection to those waters proposed as "special waters." Accordingly, the proposed provision concerning discharge of hazardous substances into special waters is deleted from this final rule.

2. *Demonstrable harm.* Many comment letters expressed the opinion that the proposed harmful quantities and the method for their derivation were inappropriate. It was suggested that the harmful quantity should be directly related to actual harm or demonstrable damage to the environment from each discharge. It was argued that the concentration of a toxic material in the water dictated whether or not damages or harm would occur. Thus, the characteristics of the receiving water body including type, size, and flow rate, all influence the toxicity and must be considered in the derivation of the harmful quantity. Other commenters argued that salinity, hardness, temperature, and biological populations of the water body further modify the actual impact of a hazardous substance discharge and should be considered.

Section 311(b)(4) requires that the determination of harmful quantities

be made by regulation in advance of any specific discharge situation. It is recognized that the degree of harm to environmental health is dependent primarily upon the concentration of the substance in the receiving water and that the pollutant concentration is dictated in large part by the type, flow rate, and size of the water body. It is further recognized that the ultimate degree of harm or damage is also a function of many other characteristics of receiving water bodies such as salinity, hardness, alkalinity, dissolved oxygen, turbidity, biological population, buffering capacity, and beneficial uses. Recognition of the numerous factors which influence the ultimate expression of harm or damages resulting from the discharge of a hazardous substance would preclude a before-the-fact quantitative evaluation of harm. The number of potentially influencing factors and their possible combinations would render any predictive model based on them entirely too cumbersome for regulatory application.

Similar to the problems discussed under the special waters provision, the boundaries and differentiation of various waters are not clearly defined nor readily discernible. The discharger, particularly from a transportation source, is not equipped to differentiate between large and small streams, estuaries and rivers, or rivers and lakes. Adoption of such an approach using variable harmful quantities depending on water body type or size would place dischargers in the position of facing criminal penalties for failure to immediately notify without having the means to make the determination that a violation has occurred. As pointed out by the numerous comments on the proposed special waters provision, such a nondefinitive determination would place an unfair burden on dischargers. The proposed approach, identifying a single harmful quantity applicable to all waters, provides a clear and definitive threshold for activation of the reporting requirement. The inclusion of numerous variables which may accompany a particular discharge and modify the harmful quantity would create uncertainty in the notification requirement which is unacceptable in light of the criminal penalty provisions for failure to give notice and the importance of prompt activation of response activities through such notice. The proposed approach adopted by this rulemaking is responsive to the requirements of the Act and the harmful quantity is defined in terms of the unit of measurement concept and the relative degree of hazard presented by each chemical. Because the determination must be made *a priori*, no individualized assessment of harm or damage is feasible.

The Clean Water Act of 1977 (Pub. L. 95-217) contained a number of

amendments to section 311 of the Federal Water Pollution Control Act including, as noted in the preamble to Part 116, amendments extending the coverage of section 311 out beyond the contiguous zone. In the debates on the conference report concerning these amendments Senator Muskie states:

The amendments to section 311 underscore the importance of this section and the need for completion of long-delayed regulatory action with respect to hazardous substances and determination of removability, harmful quantities and rates of penalty are major actions, the Administrator is expected only to make a reasonable effort to make these judgments. These are nationally applicable, before-the-fact decisions and are not expected to reflect the myriad of actual circumstances that may occur.

Congressional Record at S19653 (December 15, 1977).

This statement illustrates the principle that harmful quantity determinations, as well as designation of substances as hazardous and determinations of removability and rates of penalty, are to be based on the characteristics of the substance and not on the circumstances surrounding the discharge. Although discharges of the same substance to different bodies of water may result in different degrees of environmental harm, it is neither required by the statute nor practical to establish varying harmful quantities. In this connection it is significant that the Clean Water Act of 1977 amended section 311(b)(4) to delete the provision establishing a different test for a harmful quantity of oil in the contiguous zone than for other waters. As Senator Muskie's statement demonstrates, Congress was aware that requiring tailoring of such determinations to water body type and other circumstances is administratively unwise and could prevent achievement of the goals of the Act.

The question as to how EPA should implement the extension of the coverage of section 311 is really only a subset of the issue discussed above. The decision, arrived at with full public participation, to adopt uniform harmful quantities (and designations, determinations of removability, and rates of penalty) provides the answer. Moreover, nothing in the Clean Water Act of 1977 or its legislative history indicates that the extended coverage of section 311 was to be implemented differently in this respect than in other waters. In fact, as noted above, the contrary appears to be true. Thus, it is fully appropriate that the same provisions of Parts 116, 117, 118, and 119 which apply to other waters, also apply beyond the contiguous zone.

3. *Time of discharge.* Many comment letters addressed the fact that a discrete period of time was not proposed or associated with the determination of harmful quantity. The majority of

comments on this point expressed the opinion that the harmful quantities had little meaning unless a time period for discharge of the quantity was specified. It was argued that the discharge of 2 pounds of a category A substance over a time period of 2 months would cause significantly less environmental impact than the discharge of the same amount over a time period of 2 minutes. A number of the commenters suggested specific time periods to be associated with the harmful quantity. Suggested limits ranged from 5 minutes to one month.

Neither section 311 of the Act nor its legislative history limit the applicability of section 311 to spill-type discharges of hazardous substances. Thus, implementing regulations under section 311 may be applied to any discharge over any length of time. However, the primary thrust of these regulations has been directed toward the control of short-term nonroutine discharges of hazardous substances. The association of a maximum time limit over which the discharge of a harmful quantity must occur to result in a violation will provide additional definition to the reporting requirement under section 311(b)(5). For the purpose of this regulation a maximum time period associated with the discharge of a harmful quantity has been established as 24 hours. It is believed that this time period will permit regulatory control over such discharges of hazardous substances and provide an additional degree of resolution to the reporting requirement. It is noted that a 24 hour average or maximum discharge limit is the shortest time period specified in typical NPDES permits or associated reporting and monitoring requirements.

4. *Changes in harmful quantity categories.* Several comment letters addressed the categorization of certain specific substances suggesting that new or existing data justified alternative categories. These petitions were made, in some cases, on the basis of data selectively quoted from information utilized by the Environmental Protection Agency in deriving the proposed categorization. In other cases, additional data were submitted by commenters to support their argument. A review of all proposed harmful quantities was also suggested.

In each case, the specific information utilized by the Agency in arriving at a harmful quantity category was carefully reviewed against the new data submitted. In addition, all remaining harmful quantity categories were reviewed by the Agency. As a result of this thorough review of the harmful quantity categories, category changes have been made.

Changes in harmful quantity categories were made for about 60 substances as a result of this review with changes

from categories of higher relative toxicity to less toxic categories approximately equal to changes in the opposite direction. In terms of the direction of change, most of the changes are in agreement with suggestions from commenters. The exception usually was in cases where a commenter without benefit of supporting data requested that a material be moved from one category to a less harmful category or be removed from the list. For further information see the *Hazardous Substances Fact Sheets, 1977*.

5. *Consideration of bioaccumulation.* Several commenters suggested that the consideration of bioaccumulation could be clarified by use of more quantitative criteria for assessing the magnitude of accumulation.

The simplification of the categorization process explained earlier in the preamble discontinued the consideration of bioaccumulation. However, it is anticipated that future criteria may employ the assessment of bioaccumulation and to the extent possible that assessment will include quantitative evaluation of the effects of bioaccumulation.

6. *Magnitude of Harmful Quantities:* Numerous commenters expressed the view that the proposed harmful quantities were generally too low. Related to this some commenters pointed out an inequity in a harmful quantity category system that provides for a factor of ten difference between categories D and C, C and B, and B and A while permitting Category A to range over more than three orders of magnitude. Note Table II below from the December 30, 1975 proposal (40 FR 59889).

Category	Representative range	Harmful quantity pounds (kilograms)
A.....	LC50 < 1 mg/l.....	1.0 (0.454).
B.....	1 mg/10LC50 < 10 mg/l.....	10 (4.54).
C.....	10 mg/10LC50 < 100 mg/l.....	100 (45.4).
D.....	100 mg/10LC500500 mg/l.....	500 (227).

The Agency has, on the basis of the above comments, reevaluated the harmful quantity categories as well as each of the suggested alternatives. In doing so, rates of penalties for Category A substances were compared as a function of acute toxicities. Endrin, for example, with an acute toxicity of 0.000037 mg/l would incur a penalty of \$360 a pound. On the other hand, cupric chloride with an acute toxicity of 0.91 mg/l (about one twenty five thousandth that of Endrin) would incur a penalty of \$62 per pound, or almost 17 percent of that for the other highly toxic substance. The Agency agrees with the concern about inequity in the A category and is therefore adding another category, the details of which are described below.

Several alternatives were proposed by commenters for modifying the

harmful quantity system. The most practical of those and the one which has been accepted is to add a new category before Category A which we shall call Category X, in which substances with LC50 values of less than 0.1 mg/l are included, and to designate for this Category X the basic unit of one pound as the harmful quantity. The designated harmful quantities for Categories A, B, C, and D are then changed to 10, 100, 1,000 and 5,000 pounds respectively. Category A then retains only the acute toxicity range 0.1 LC50 1 ppm. Categories B, C, and D retain their LC50 ranges as proposed. The modified harmful quantity system is shown in table below:

Category	Toxicity range	Harmful quantity pounds (kilograms)
X.....	LC50 < 0.1 mg/l.....	1.0 (0.454).
A.....	0.1 mg/10LC50 < 1 mg/l.....	10 (4.54).
B.....	1 mg/10LC50 < 10 mg/l.....	100 (45.4).
C.....	10 mg/10LC50 < 100 mg/l.....	1,000 (454).
D.....	100 mg/10LC500500 mg/l.....	5,000 (2,270).

As mentioned earlier in this preamble and illustrated by the above table, the system for categorization has been simplified and is based solely on the ranges of aquatic toxicity. The overall effect of adding the additional Category X is that the harmful quantities proposed on December 30, 1975, have been increased. Due to the few data on recorded discharges, it is not possible to estimate the effect this change will have on the number of discharges exceeding the harmful quantity. Intuitively, it would appear that fewer discharges would exceed the present harmful quantity than those quantities proposed earlier. However, because these regulations generally apply to discharges which are the result of episodic events such as transportation and storage accidents and plant upsets, it is believed that the harmful quantities adopted by this Part 118 will regulate the bulk of those discharges which present an imminent and substantial threat to public health and welfare and the environment.

7. *Applicability:* A. Many comment letters expressed the opinion that the Applicability section proposed as Part 118.1 was inappropriate as it related to the section 402 National Pollutant Discharge Elimination System (NPDES) program. Most commenters believed that any association of section 311 regulations with an effluent discharge regulated under the NPDES program was redundant and exceeded the statutory authority of section 311. The primary alternative suggestion was that all holders of an NPDES permit be totally exempt from the provisions of section 311. The stated basis for

this position was that violations of the NPDES permit are enforceable in their own right under section 309 and that additional reporting and enforcement provisions under section 311 were redundant, unnecessary, and burdensome. It was further argued that section 311 of the Act applied only to spills from sources other than an NPDES permitted facility.

As stated under the discussion of the "Time of Discharge," above, nothing in the Act limits the applicability of section 311 only to "spill-type" situations. However, the stated thrust and primary emphasis in these initial regulations (40 CFR Parts 116, 117, 118, and 119) is the control of spill-type or nonroutine discharge episodes. This policy of addressing such discharges as the priority area of concern does not preclude the application of section 311 to other discharges of hazardous substances. Section 311 provides important authorities and authorizes requirements not all of which are found in other sections of the Act. These include: (1) Immediate notification in the event of a discharge (section 311(b)(5)); (2) an organized Federal government plan to deal with pollution emergencies (section 311(c)(2)); (3) authority of the Federal government to respond to pollution emergencies and take actions to protect public health and welfare and the environment (section 311(c)(1)); (4) an established fund to support pollution emergency activities (section 311(k)); (5) responsible party liabilities for cleanup costs incurred by the Federal Government (sections 311(f) and (g)); and (6) removal and discharge prevention regulations (section 311(j)). The intent of the proposed applicability section was to clearly exclude discharges of hazardous substances which are permitted under other sections of the Act and related laws from the provisions of these regulations. Although violations of such other requirements may be enforced independently, no emergency response activities and the accompanying protection of public health such as those mentioned above are authorized. Therefore, discharges in violation of such requirements are in violation of section 311 as well.

The 24-hour discharge of a designated hazardous substance in a quantity equal to or exceeding its harmful quantity and in excess of the limitation in an NPDES permit issued pursuant to section 402 of the Act is a violation of these rules.

b. Some commenters pointed out that a discharger may not know for several days (the period required to do testing) whether his discharges violate his NPDES permit.

The requirement to provide notification arises when the discharger learns or should have known that he has made a discharge in a harmful quantity in violation of section 311(b)(4).

c. One comment letter pointed out that the State of California, under State statutory authority, issues permits for the application of calcium oxide to kelp beds for the control of sea urchins. Because the applicability section of the proposed rules did not specifically exclude such discharges, there was concern that continued use of calcium oxide in California waters may constitute a violation of section 311.

The beneficial uses of substances designated as hazardous in Part 116 have been recognized by the exclusion of certain activities permitted under Federal law. The benefits of calcium oxide addition to waters containing commercial kelp beds are also recognized and the applicability section of this final rule is amended to exclude discharges permitted under §165.7 of Title 14 of the California Administrative Code. A similar modification is made in 40 CFR Part 119.1.

d. In regard to the exclusion from applicability for activities permitted under section 404 of the Act or section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, it was pointed out that permits are not issued for Congressionally authorized projects. Accordingly, it was suggested that the language be changed to reflect compliance with the sections of law rather than the specific permit.

The suggested alternative is adopted in this final rulemaking.

e. Several commenters questioned whether discharges of materials for mitigation purposes would subject the discharger to further penalties. For example, base materials listed as hazardous substances might be discharged to neutralize acid discharges, thus subjecting the discharger to potential penalties for discharge of base materials.

The Agency believes that it would be contrary to the spirit of the law to penalize persons for undertaking mitigation actions which are encouraged under section 311. At the same time, the Agency believes that care must be exercised in carrying out mitigation actions. The Agency intends to promulgate removal regulations at a later date. Accordingly, the Agency has clarified the applicability of the regulations by amending §118.1 (and 119.1) to provide that mitigation actions undertaken on the instructions or with the approval of the Federal On-Scene Coordinator pursuant to 40 CFR 1510 (The National Oil and Hazardous Substance Contingency Plan), or pursuant to 33 CFR §153.105(c) (Pollution by Oil or Hazardous Substances), or in accordance with applicable section 311(j)(1)(A) regulations, when promulgated, do not violate section 311.

Dated: March 3, 1978.

DOUGLAS M. COSTLE,
Administrator.

Part 118 is added as follows:

- Sec.
118.1 Applicability.
118.2 Abbreviations.
118.3 Definitions.
118.4 Determination of Harmful Quantities.
118.5 Demonstration Projects.
118.6 Notice.
118.7 Penalties.
118.8 Liabilities.

AUTHORITY: Secs. 311 and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 *et seq.*, (the Act)) and Executive Order 11735.

§118.1 Applicability.

This regulation makes a determination of the harmful quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than those set forth below, except to the extent that the owner or operator can show such discharges are made (1) in compliance with the requirements of sections 301, 302, 304, 306, 307, 318 and 403 of the Act, and in compliance with a National Pollutant Discharge Elimination System (NPDES) permit which has been issued pursuant to section 402 of the Act, (2) in compliance with Section 404 of the Act or in compliance with a permit issued under the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 *et seq.*), (3) in compliance with approved water treatment plant operations as specified by local, State or Federal regulations pertaining to safe drinking water, (4) pursuant to the label directions for application of a pesticide product registered under 40 CFR Part 162 (FEDERAL REGISTER, Vol. 40, No. 129, Part II, pp. 28242-28286, July 3, 1975) by authority of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended by the Federal Environmental Pesticide Control Act of 1972 (Pub. L. 92-516, 86 Stat. 973; Pub. L. 94-140, 86 Stat. 751; 7 U.S.C. 136 *et seq.*), (5) in compliance with the regulations issued under section 3004 of the Resource Conservation and Recovery Act, 90 Stat. 2795; 42 U.S.C. 6901, (6) in compliance with instructions of the On-Scene Coordinator pursuant to 40 CFR 1510 (the National Oil and Hazardous Substance Contingency Plan) or 33 CFR §153.105(c) (Pollution by Oil and Hazardous Substances) or in accordance with applicable removal regulations as required by §311(j)(1)(A), (7) in compliance with a permit issued under Section 165.7 of Title 14 of the State of California Administrative Code, or (8) from a properly functioning inert gas system when used to provide inert gas to the cargo tanks of a vessel. For the purpose of this Part 118.1, compliance with an NPDES permit means a discharge during a 24 hour period of a designated hazardous substance (40 CFR Part 116) when such discharge is equal to

or less than the maximum daily amount expressly allowed in such permit, or is equal to or less than the average daily discharge for a hazardous substance not limited expressly in the permit, but as disclosed in the permit application.

§118.2 Abbreviations.

lb equals pound.
kg equals kilogram.
HQ equals harmful quantity.

§118.3 Definitions.

As used in this part, all terms shall have the meanings stated in 40 CFR Parts 116 and 117.

§118.4 Determination of harmful quantities.

The quantity listed with each substance in Table 118.4 is determined to be the harmful quantity for that substance. The harmful quantities of mixtures or solutions are considered additive based upon the proportions of the individual elements or compounds as follows. For a mixture or solution of substance X, substance Y, and substance Z, etc., the weight of substance X discharged is divided by the harmful quantity of pure substance X, and so forth. Next, the fractions so derived are added. If the total equals or exceeds unity, then the harmful quantity of the mixture or solution has been equaled or exceeded.

TABLE 118.4—HARMFUL QUANTITIES OF HAZARDOUS SUBSTANCES

NOTE.—The first number under the column headed "HQ" is the harmful quantity in pounds. The number in parentheses is the metric equivalent in kilograms. The column headed "Category" lists the EPA Category associated with each substance.

Material	Category	HQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454).
Acetic acid	C	1,000 (454).
Acetic anhydride	C	1,000 (454).
Acetone cyanohydrin	A	10 (4.54).
Acetyl bromide	D	5,000 (2,270).
Acetyl chloride	D	5,000 (2,270).
Acrolein	X	1 (0.454).
Acrylonitrile	B	100 (45.4).
Aldrin	X	1 (0.454).
Allyl alcohol	B	100 (45.4).
Allyl chloride	C	1,000 (454).
Aluminum sulfate	D	5,000 (2,270).
Ammonia	B	100 (45.4).
Ammonium acetate	D	5,000 (2,270).
Ammonium benzoate	D	5,000 (2,270).
Ammonium bicarbonate	D	5,000 (2,270).
Ammonium bichromate	C	1,000 (454).
Ammonium bifluoride	D	5,000 (2,270).
Ammonium bisulfite	D	5,000 (2,270).
Ammonium carbamate	D	5,000 (2,270).
Ammonium carbonate	D	5,000 (2,270).
Ammonium chloride	D	5,000 (2,270).
Ammonium chromate	C	1,000 (454).
Ammonium citrate	D	5,000 (2,270).
Ammonium fluoroborate	D	5,000 (2,270).
Ammonium fluoride	D	5,000 (2,270).
Ammonium hydroxide	C	1,000 (454).
Ammonium oxalate	D	5,000 (2,270).
Ammonium silicofluoride	C	1,000 (454).

RULES AND REGULATIONS

Material	Category	HQ in pounds (kilograms)	Material	Category	HQ in pounds (kilograms)	Material	Category	HQ in pounds (kilograms)
Ammonium sulfamate.....	D	5,000 (2,270).	Endosulfan.....	X	1 (0.454).	Resorcinol.....	D	5,000 (2,270).
Ammonium sulfide.....	D	5,000 (2,270).	Endrin.....	X	1 (0.454).	Selenium oxide.....	C	1,000 (454).
Ammonium sulfate.....	D	5,000 (2,270).	Ethion.....	A	10 (4.54).	Sodium.....	C	1,000 (454).
Ammonium tartrate.....	D	5,000 (2,270).	Ethylbenzene.....	C	1,000 (454).	Sodium arsenate.....	C	1,000 (454).
Ammonium thiocyanate.....	D	5,000 (2,270).	Ethylendiamine.....	C	1,000 (454).	Sodium arsenite.....	C	1,000 (454).
Ammonium thiosulfate.....	D	5,000 (2,270).	EDTA.....	D	5,000 (2,270).	Sodium bichromate.....	C	1,000 (454).
Amyl acetate.....	C	1,000 (454).	Ferric ammonium citrate.....	C	1,000 (454).	Sodium bifluoride.....	D	5,000 (2,270).
Aniline.....	C	1,000 (454).	Ferric ammonium oxalate.....	C	1,000 (454).	Sodium bisulfite.....	D	5,000 (2,270).
Antimony pentachloride.....	C	1,000 (454).	Ferric chloride.....	C	1,000 (454).	Sodium chromate.....	C	1,000 (454).
Antimony potassium tartrate.....	C	1,000 (454).	Ferric fluoride.....	B	100 (45.4).	Sodium cyanide.....	A	10 (4.54).
Antimony tribromide.....	C	1,000 (454).	Ferric nitrate.....	C	1,000 (454).	Sodium.....		
Antimony trichloride.....	C	1,000 (454).	Ferric sulfate.....	C	1,000 (454).	dodecylbenzenesulfonate ..	C	1,000 (454).
Antimony trifluoride.....	C	1,000 (454).	Ferrous ammonium sulfate.....	C	1,000 (454).	Sodium fluoride.....	D	5,000 (2,270).
Antimony trioxide.....	D	5,000 (2,270).	Ferrous chloride.....	B	100 (45.4).	Sodium hydrosulfide.....	D	5,000 (2,270).
Arsenic disulfide.....	D	5,000 (2,270).	Ferrous sulfate.....	C	1,000 (454).	Sodium hydroxide.....	C	1,000 (454).
Arsenic pentoxide.....	D	5,000 (2,270).	Formaldehyde.....	C	1,000 (454).	Sodium hypochlorite.....	B	100 (45.4).
Arsenic trichloride.....	D	5,000 (2,270).	Formic acid.....	D	5,000 (2,270).	Sodium methylvate.....	C	1,000 (454).
Arsenic trichloride.....	D	5,000 (2,270).	Fumaric acid.....	D	5,000 (2,270).	Sodium nitrite.....	B	100 (45.4).
Arsenic trisulfide.....	D	5,000 (2,270).	Furfural.....	C	1,000 (454).	Sodium phosphate, dibasic.....	D	5,000 (2,270).
Barium cyanide.....	A	10 (4.54).	Guthion.....	X	1 (0.454).	Sodium phosphate, tribasic.....	D	5,000 (2,270).
Benzene.....	C	1,000 (454).	Heptachlor.....	X	1 (0.454).	Sodium selenite.....	C	1,000 (454).
Benzoic acid.....	D	5,000 (2,270).	Hydrochloric acid.....	D	5,000 (2,270).	Strontium chromate.....	C	1,000 (454).
Benzonitrile.....	C	1,000 (454).	Hydrofluoric acid.....	D	5,000 (2,270).	Strychnine.....	A	10 (4.54).
Benzoyl chloride.....	C	1,000 (454).	Hydrogen cyanide.....	A	10 (4.54).	Styrene.....	C	1,000 (454).
Benzyl chloride.....	B	100 (45.4).	Isoprene.....	C	1,000 (454).	Sulfuric acid.....	C	1,000 (454).
Beryllium chloride.....	D	5,000 (2,270).	Isopropylamine.....	C	1,000 (454).	Sulfur monochloride.....	C	1,000 (454).
Beryllium fluoride.....	D	5,000 (2,270).	dodecylbenzenesulfonate ..	C	1,000 (454).	2,4,5-T Acid.....	B	100 (45.4).
Beryllium nitrate.....	D	5,000 (2,270).	Kelthane.....	D	5,000 (2,270).	2,4,5-T Esters.....	B	100 (45.4).
Butyl acetate.....	D	5,000 (2,270).	Lead acetate.....	D	5,000 (2,270).	TDE.....	X	1 (0.454).
Butylamine.....	C	1,000 (454).	Lead arsenate.....	D	5,000 (2,270).	Tetraethyl lead.....	B	100 (45.4).
Butyric acid.....	D	5,000 (2,270).	Lead chloride.....	D	5,000 (2,270).	Tetraethyl pyrophosphate.....	B	100 (45.4).
Cadmium acetate.....	B	100 (45.4).	Lead fluoroborate.....	D	5,000 (2,270).	Toluene.....	C	1,000 (454).
Cadmium bromide.....	B	100 (45.4).	Lead fluoride.....	C	1,000 (454).	Toxaphene.....	X	1 (0.454).
Cadmium chloride.....	B	100 (45.4).	Lead iodide.....	D	5,000 (2,270).	Trichlorfon.....	X	1 (0.454).
Calcium arsenate.....	C	1,000 (454).	Lead nitrate.....	D	5,000 (2,270).	Trichlorophenol.....	A	10 (4.54).
Calcium arsenite.....	C	1,000 (454).	Lead stearate.....	D	5,000 (2,270).	Triethanolamine.....		
Calcium carbide.....	D	5,000 (2,270).	Lead sulfate.....	D	5,000 (2,270).	dodecylbenzenesulfonate ..	C	1,000 (454).
Calcium chromate.....	C	1,000 (454).	Lead sulfide.....	D	5,000 (2,270).	Triethylamine.....	D	5,000 (2,270).
Calcium cyanide.....	A	10 (4.54).	Lead thiocyanate.....	D	5,000 (2,270).	Trimethylamine.....	C	1,000 (454).
Calcium.....			Lindane.....	X	1 (0.454).	Uranyl acetate.....	D	5,000 (2,270).
dodecylbenzenesulfonate ..	C	1,000 (454).	Lithium chromate.....	C	1,000 (454).	Uranyl nitrate.....	D	5,000 (2,270).
Calcium hydroxide.....	D	5,000 (2,270).	Malathion.....	A	10 (4.54).	Vanadium pentoxide.....	C	1,000 (454).
Calcium hypochlorite.....	A	10 (4.54).	Maleic acid.....	D	5,000 (2,270).	Vanadyl sulfate.....	C	1,000 (454).
Calcium oxide.....	D	5,000 (2,270).	Maleic anhydride.....	D	5,000 (2,270).	Vinyl acetate.....	C	1,000 (454).
Captan.....	A	10 (4.54).	Mercuric cyanide.....	X	1 (0.454).	Xylene.....	C	1,000 (454).
Carbaryl.....	B	100 (45.4).	Mercuric nitrate.....	A	10 (4.54).	Xylenol.....	C	1,000 (454).
Carbon disulfide.....	D	5,000 (2,270).	Mercuric sulfate.....	A	10 (4.54).	Zinc acetate.....	C	1,000 (454).
Chlordane.....	X	1 (0.454).	Mercuric thiocyanate.....	A	10 (4.54).	Zinc ammonium chloride.....	D	5,000 (2,270).
Chlorine.....	A	10 (4.54).	Mercurous nitrate.....	A	10 (4.54).	Zinc borate.....	C	1,000 (454).
Chlorobenzene.....	B	100 (45.4).	Methoxychlor.....	X	1 (0.454).	Zinc bromide.....	D	5,000 (2,270).
Chloroform.....	D	5,000 (2,270).	Methyl mercaptan.....	B	100 (45.4).	Zinc carbonate.....	C	1,000 (454).
Chlorpyrifos.....	X	1 (0.454).	Methyl Methacrylate.....	D	5,000 (2,270).	Zinc chloride.....	D	5,000 (2,270).
Chlorosulfonic acid.....	C	1,000 (454).	Methyl parathion.....	B	100 (45.4).	Zinc cyanide.....	A	10 (4.54).
Chromic acetate.....	C	1,000 (454).	Mevinphos.....	X	1 (0.454).	Zinc fluoride.....	C	1,000 (454).
Chromic acid.....	C	1,000 (454).	Mexcarb.....	C	1,000 (454).	Zinc formate.....	C	1,000 (454).
Chromic sulfate.....	C	1,000 (454).	Monothylamine.....	C	1,000 (454).	Zinc hydrosulfite.....	C	1,000 (454).
Chromous chloride.....	C	1,000 (454).	Monomethylamine.....	C	1,000 (454).	Zinc nitrate.....	D	5,000 (2,270).
Cobaltous bromide.....	C	1,000 (454).	Naled.....	A	10 (4.54).	Zinc phenolsulfonate.....	D	5,000 (2,270).
Cobaltous formate.....	C	1,000 (454).	Naphthalene.....	D	5,000 (2,270).	Zinc phosphide.....	C	1,000 (454).
Cobaltous sulfamate.....	C	1,000 (454).	Naphthenic acid.....	B	100 (45.4).	Zinc silicofluoride.....	D	5,000 (2,270).
Coumaphos.....	A	10 (4.54).	Nickel ammonium sulfate.....	D	5,000 (2,270).	Zinc sulfate.....	C	1,000 (454).
Cresol.....	C	1,000 (454).	Nickel chloride.....	D	5,000 (2,270).	Zirconium nitrate.....	D	5,000 (2,270).
Cupric acetate.....	B	100 (45.4).	Nickel hydroxide.....	C	1,000 (454).	Zirconium potassium fluo- ride.....	D	5,000 (2,270).
Cupric acetoarsenite.....	B	100 (45.4).	Nickel nitrate.....	D	5,000 (2,270).	Zirconium sulfate.....	D	5,000 (2,270).
Cupric chloride.....	A	10 (4.54).	Nickel sulfate.....	D	5,000 (2,270).	Zirconium tetrachloride.....	D	5,000 (2,270).
Cupric nitrate.....	B	100 (45.4).	Nitric acid.....	C	1,000 (454).			
Cupric oxalate.....	B	100 (45.4).	Nitrobenzene.....	C	1,000 (454).			
Cupric sulfate.....	A	10 (4.54).	Nitrogen dioxide.....	C	1,000 (454).			
Cupric sulfate ammoniated.....	B	100 (45.4).	Nitrophenol.....	C	1,000 (454).			
Cupric tartrate.....	B	100 (45.4).	Paraformaldehyde.....	C	1,000 (454).			
Cyanogen chloride.....	A	10 (4.54).	Parathion.....	X	1 (0.454).			
Cyclohexane.....	C	1,000 (454).	Pentachlorophenol.....	A	10 (4.54).			
2,4-D Acid.....	B	100 (45.4).	Phenol.....	C	1,000 (454).			
2,4-D Esters.....	B	100 (45.4).	Phosgene.....	D	5,000 (2,270).			
DDT.....	X	1 (0.454).	Phosphoric acid.....	D	5,000 (2,270).			
Diazinon.....	X	1 (0.454).	Phosphorus.....	X	1 (0.454).			
Dicamba.....	C	1,000 (454).	Phosphorus oxychloride.....	D	5,000 (2,270).			
Dichlobenil.....	C	1,000 (454).	Phosphorus pentasulfide.....	C	1,000 (454).			
Dichlorone.....	X	1 (0.454).	Phosphorus trichloride.....	D	5,000 (2,270).			
2,2-Dichloropropionic acid.....	D	5,000 (2,270).	Polychlorinated biphenyls.....	A	10 (4.54).			
Dieldrin.....	X	1 (0.454).	Potassium arsenate.....	C	1,000 (454).			
Diethylamine.....	C	1,000 (454).	Potassium arsenite.....	C	1,000 (454).			
Dimethylamine.....	C	1,000 (454).	Potassium bichromate.....	C	1,000 (454).			
Dinitrobenzene.....	C	1,000 (454).	Potassium chromate.....	C	1,000 (454).			
Dinitrophenol.....	C	1,000 (454).	Potassium cyanide.....	A	10 (4.54).			
Diquat.....	C	1,000 (454).	Potassium hydroxide.....	C	1,000 (454).			
Disulfoton.....	X	1 (0.454).	Potassium permanganate.....	B	100 (45.4).			
Diuron.....	B	100 (45.4).	Propionic acid.....	D	5,000 (2,270).			
Dodecylbenzenesulfonic acid.....	C	1,000 (454).	Propionic anhydride.....	D	5,000 (2,270).			
			Pyrethrins.....	C	1,000 (454).			
			Quinoline.....	C	1,000 (454).			

§ 118.5 Demonstration projects.

Notwithstanding any other provision of this Part, the Administrator of the Environmental Protection Agency may permit, on a case-by-case basis, the discharge of harmful quantities of designated hazardous substances in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of hazardous substance pollution.

§ 118.6 Notice.

Any person in charge of a vessel or an onshore or an offshore facility shall, as soon as he has knowledge of any discharge of a designated hazard-

ous substance from such vessel or facility in quantities equal to or exceeding in any 24-hour period the harmful quantity determined by this Part, immediately notify the appropriate agency of the United States Government of such discharge. Notice shall be given in accordance with such procedures as the Secretary of Transportation has set forth in 33 CFR Part 153.

§ 118.7 Penalties.

(a) Any person in charge of a vessel or an onshore or offshore facility who fails to notify immediately the United States Government of discharges of hazardous substances designated in 40 CFR Part 116 equal to or exceeding in any 24-hour period those quantities determined to be harmful as set forth in this Part (except in the case of a discharge beyond the contiguous zone, a person in charge of a vessel not otherwise subject to the jurisdiction of the United States) shall be subject to not more than \$10,000 or imprisonment for not more than one year or both pursuant to section 311(b)(5).

(b) The owner or operator of a vessel or onshore or offshore facility from which is discharged a hazardous substance designated in 40 CFR Part 116 in a quantity equal to or exceeding in any 24-hour period the harmful quantity established in this Part (except in the case of a discharge beyond the contiguous zone, a person in charge of a vessel not otherwise subject to the jurisdiction of the United States) shall be assessed a civil penalty of up to \$5,000 under section 311(b)(6).

(c) The owner or operator of a vessel or onshore or offshore facility from which is discharged a hazardous substance designated in 40 CFR Part 116, shall, subject to the defenses to liability provided in section 311(f), be subject to a civil penalty assessed under Section 311(b)(2)(B)(iii) as set forth in 40 CFR Part 119, provided that such hazardous substance shall have been determined in 40 CFR Part 117, not to be actually removable, and provided further that the quantity of such hazardous substance discharged equals or exceeds in any 24-hour period the harmful quantity established in this Part.

§ 118.8 Liabilities for removal.

In any case where a substance designated as hazardous in 40 CFR Part 116 is discharged from any vessel or onshore or offshore facility in a quantity equal to or exceeding the harmful quantity determined by this Part, the party or parties liable pursuant to sections 311(f) and (g) of the Act shall be liable to the United States Government for the actual costs incurred in the removal of such substance, subject only to the defenses and monetary limitations enumerated in sections

311(f) and (g) of the Act. Removal refers to removal of the hazardous substance from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

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[6560-01]

[FRL 829-51]

PART 119—DETERMINATION OF UNITS OF MEASUREMENT AND RATES OF PENALTY FOR HAZARDOUS SUBSTANCES

AGENCY: Environmental Protection Agency.

ACTION: Final rulemaking.

SUMMARY: This regulation establishes new rules which set forth the methods and procedures for determining and assessing civil penalties for the discharge of hazardous substances in harmful quantities in violation of Section 311 of the Federal Water Pollution Control Act. It also includes units of measurement and rates of penalty for particular substances which may be utilized as the basis for computing the penalty. This regulation should be read in conjunction with other regulations which are also being promulgated today in this same separate part of the FEDERAL REGISTER, and which designate hazardous substances, removability, and harmful quantities, respectively.

EFFECTIVE DATES: June 12, 1978, except for vessels. For vessels the effective date is September 11, 1978.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: On December 30, 1975, the Administrator of the Environmental Protection Agency proposed in the FEDERAL REGISTER (40 FR 59999) to create a new Part 119 in Title 40 of the Code of Federal Regulations. In that publication, units of measurement and rates of penalty for hazardous substances as required under section 311(b)(2)(B)(iv) of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), (the Act) were proposed. At the same time the designation of hazardous substances, determination of actual re-

movability, and determination of harmful quantities were proposed as Parts 116, 117, and 118 respectively. Final promulgation of those regulations is concurrent with this rulemaking.

Interested persons were given until March 1, 1976, to submit written comments on all aspects of the proposed rules. More than a third of all comment letters addressed some aspects of penalty assessment. Each of those comments has been carefully considered in adopting the rules which are promulgated at this time. Those areas of substantive comment are discussed below, following a general statement concerning the content of the regulations.

A. PRINCIPAL FEATURES OF THE REGULATIONS

1. UNIT OF DISCHARGE AND PENALTY RATE

Section 311(b)(2)(B)(iii) of the Act subjects the owner or operator of any vessel, onshore facility, or offshore facility from which there is discharged any hazardous substance which has been determined to be not actually removable (see 40 CFR Part 117) to either of two alternative civil penalties. The first, under subsection (aa) thereof, is to be based on "the toxicity, degradability, and dispersal characteristics of the substance" and is not to exceed \$5,000. The second, under subsection (bb) thereof, is determined by the number of units discharged multiplied by the rate of penalty under section 311(b)(2)(B)(iv) of the Act, as implemented in section 119.5 of this Part, and may be up to \$5 million in the case of a discharge from a vessel and \$500,000 in the case of a discharge from an onshore or offshore facility.

Section 119.4 of these regulations enumerates the factors to be considered in selection of the penalty provision. In the section as proposed on December 30, 1975, the discriminator between the two sections was "gross negligence." Because of the difficulty of proving gross negligence, and the absence of such a discriminator in the applicable statutory language, a number of commenters were critical of the Agency's adoption of this standard. In response to the suggestions of these commenters, the Agency has reconsidered its position, and in the regulations promulgated at this time has adopted a discriminator based on the gravity of the offense. The factors which must be considered by the Regional Administrator in selecting a penalty include the size of the discharge, the culpability of the owner, the extent of any mitigation or clean-up efforts, and any other factors which he finds relevant under the circumstances. It should be noted that the choice of penalty as provided in the Act is "in the discretion of the Administrator."

Generally those commenters who advocated use of the gross negligence discriminator also expressed concern with the proposed harmful quantity categorization system. As described in the preamble to Part 118 the Agency, after extensive review and analysis, has now revised that system by adding another category for the most acutely toxic substances.

With respect to the penalty rates to be established under section 311(b)(2)(B)(iii)(bb), the Act provides as follows in section 311(b)(2)(B)(iv):

The Administrator shall establish by regulation, for each hazardous substance designated under subparagraph (A) of this paragraph, and within 180 days of the date of such designation, a unit of measurement based upon the usual trade practice and, for the purpose of determining the penalty under clause (iii)(bb) of this subparagraph, shall establish for each such unit a fixed monetary amount which shall be not less than \$100 nor more than \$1,000 per unit. He shall establish such fixed amount based on the toxicity, degradability, and dispersal characteristics of the substance.

As more fully set forth in the preamble to Part 118 which is being promulgated concurrently with this regulation, the method selected for determination of harmful quantities involves the ranking of hazardous substances on the basis of acute toxicity. Substances are divided into five categories on the basis of their relative toxicity, a fifth category having been added after review and consideration by the Agency of public comment on the proposed harmful quantity rulemaking. The smallest common commercial container size was then defined as the harmful quantity for the most toxic category. Other categories were thereafter assigned harmful quantities on a proportional basis but at higher values than proposed.

Several commenters expressed the opinion that potential penalties from some spills would be unduly excessive with relatively small spills resulting in nearly maximum possible penalties. One example calculated by a commenter indicated that the spill of a single truck load of copper sulfate, a Category B substance with a median dispersion factor, could result in a penalty of nearly \$2.5 million. In another example it was noted that the rupture of a transfer line from a bulk terminal to a vessel being loaded with cresol, a Category B substance with a slightly higher dispersion factor than copper sulfate, could result in the discharge of 12,000 pounds in one minute and a resultant penalty of nearly \$1 million.

Both the proposed harmful quantity and rate of penalty structures have been reviewed extensively by the Agency. Each has been modified to permit the application of penalties in a more reasonable manner that is uniform in proportionality from the most acutely toxic to the least acutely toxic

of the designated substances. The modification to the rate of penalty table resulted from the modification of the harmful quantity table as described in the Preamble to Part 118. Its effect was to reduce by a factor of 10 the penalties for substances in the 1 to 500 mg/l LC50 range. The new harmful quantity and rate of penalty schedules are set forth in Tables 1 and 4 below.

With respect to mixtures of more than one hazardous substance, for the reasons set forth in the preamble to the Agency's December 30, 1975, proposal of this Part, 40 FR at 60000, rates of penalty will be the sum of the rates which would be assessed for each individual component of the mixture. Also in response to comment on that proposal, for discharges of a mixture in which the weights of the individual components are not known a penalty will be assessed for the discharge based on the harmful quantity and penalty rate for the most toxic component of the mixture. For solutions, the penalties assessed will be based on the content of hazardous substances. No penalties will be assessed for materials recovered unreleased from their integral containers. Resources expended on the development of containers that prevent discharges promote the objective of section 311 more so than resources expended on penalties or insurance.

A vital element of section 311(b)(2)(B)(iv) is the selection of the unit of measurement. As noted in the preamble to the December 1975, proposal, Agency studies involving industry and trade associations did not reveal such a unit to be universally common to trade practice. A common unit of measurement for the manufacturer is frequently different from that employed by the user of the same material. Furthermore, price quotations show a variety of commercial units for the same chemical. Transporters of chemicals frequently employ units different from those of either manufacturer or user. Still further variations are seen depending on the mode of transport.

In summary, the finding of the Agency is that the only generally common unit of measure is a weight unit, the pound. No compelling evidence was presented in the public comments for departing from this approach. Multiples of this basic unit are utilized throughout the chemical and transportation industries, but no single multiple of the basic pound unit can be found to be representative of the usual trade practice for any chemical. The penalties using these common units of measure shall be based on the toxicity and the dispersal characteristics of the substance (section 311(b)(2)(B)(iv)) with the latter ranked in order of relative potential

harm to the public health or welfare in the event of a discharge. The feature in common is the potential capacity of the substance to cause environmental damage. Therefore, the minimum quantity of each material causing probable harm can be thought of as a common unit. Thus the weight corresponding to the smallest common commercial container size, one pound (0.454 kilogram), previously adopted as the "harmful quantity" for materials in the most toxic EPA harmful quantity category, has also been adopted as the "unit of measurement" for materials in the new most toxic category, Category x, and assigned a base penalty rate of \$1,000 per unit. Other categories are assigned larger units of measurement which are finite multiples of the basic one pound unit. The aquatic toxicity ranges for various hazard categories and the units of measurement derived from the appropriate ratios are found in Table I.

TABLE I.—UNITS OF MEASUREMENT

Category	Unit of measurement lb (kg)	Toxicity range
X.....	1 (0.454).....	LC50 < 0.1 mg/l.
A.....	10 (4.54).....	0.1 mg/10LC50 < 1mg/l.
B.....	100 (45.4).....	1 mg/10LC50 < 10 mg/l.
C.....	1,000 (454).....	10 mg/10LC50 < 100 mg/l.
D.....	5,000 (2270).....	100 mg/10LC50 < 500 mg/l.

The system adopted recognizes that not all substances within a category exert their damaging effects equally. The law requires that the penalties range between \$100 and \$1,000 per unit of measurement. For each category the upper penalty limit is modified by physical/chemical adjustment factors which in addition reflect the substance's ability to disperse.

The adjustment factor (0.1 to 1.0) arises from a second profiling operation based on the solubility, density, volatility, and associated propensity for dispersal in water of each hazardous substance. Each substance has been placed in one of eight categories combining these physical/chemical/dispersal properties in various ways. The relative harm these categories pose to the environment was then ranked. The terms involved and final relative ranking of physical/chemical/dispersal categories, in increasing order of relative damage potential, are shown in Table II and the physical/chemical/dispersal (P/C/D) factor of each substance is also indicated in Table 119.5.

TABLE II.—PHYSICAL/CHEMICAL/DISPERSAL (P/C/D) ADJUSTMENT FACTORS

Material classification	P/C/D Rank category	P/C/D factor
Insoluble Volatile Floater.....	IVF	1
Insoluble Nonvolatile Floater.....	INF	0.10
er.		.23

TABLE II.—PHYSICAL/CHEMICAL/DISPERSAL (P/C/D) ADJUSTMENT FACTORS—Continued

Material classification	P/C/D Rank category	P/C/D factor
Insoluble Sinkers.....	IS	3 .36
Soluble Mixers.....	SM	4 .49
Precipitators.....	P	5 .62
Soluble Sinkers.....	SS	6 .75
Soluble Floaters.....	SF	7 .88
Miscibles.....	M	8 1.0

LEGEND

IVF—(insoluble volatile floater)—materials lighter than water with a vapor pressure greater than 10 mm Hg and a solubility of less than 1,000 ppm (weight per weight basis) or materials with vapor pressure greater than 100 mm Hg and solubility less than 10,000 ppm.

INF—(insoluble nonvolatile floater)—materials lighter than water with a vapor pressure greater than 10 mm Hg and a solubility

of less than 1,000 ppm (weight per weight basis).

IS—(insoluble sinker)—materials heavier than water and of solubility less than 1,000 ppm (weight per weight basis).

SM—(soluble mixer)—solid substances which have a solubility greater than 1,000 grams of solute per 1,000 grams of water.

P—(precipitator)—salts which dissociate or hydrolyze in water with subsequent precipitation of a toxic ion.

SS—(soluble sinker)—materials heavier than water and of solubility greater than 1,000 ppm (weight per weight basis).

SF—(soluble floater)—materials lighter than water and of a solubility greater than 1,000 ppm (weight per weight basis).

M—(miscible)—liquid substances which can freely mix with water in any proportion.

In summary, the adjusted rates of penalty, in dollars per unit of measurement, arising from possible combinations of toxic category and P/C/D factor are set forth in Table III below.

TABLE III.—Rates of penalty

(In dollars per unit of measurement)

Category:	P/C/D classes						
	IVF	INF	IS	SM	P	SS	SF
X.....	100	230	360	490	620	750	880
A.....	100	230	360	490	620	750	880
B.....	100	230	360	490	620	750	880
C.....	100	230	360	490	620	750	880
D.....	100	230	360	490	620	750	880

For convenience, table IV shows the approximate rates of penalty, in dollars per pound, for all combinations of toxic category and P/C/D factor.

TABLE IV.—Rates of Penalty

(In dollars per pound)

Category:	P/C/D classes							
	IVF	INF	IS	SM	P	SS	SF	M
X.....	100	230	360	490	620	750	880	1000
A.....	10	23	36	49	62	75	88	100
B.....	1.0	2.3	3.6	4.9	6.2	7.5	8.8	10
C.....	.10	.23	.36	.49	.62	.75	.88	1.0
D.....	.02	.05	.07	.10	.12	.15	.18	.2

The statute also requires that the Agency consider the degradability of hazardous substances in establishing rates of penalty. However, as explained elsewhere in the preamble to this Part and to Part 118, this initial rulemaking primarily concerns acute spill-type discharges and the designation and harmful quantity determinations were therefore based solely on acute toxicity. For this reason substances are deemed to have the same degradability within the short term toxicity period for the purposes of this rulemaking. When the Agency modifies the designation and harmful quantity criteria to include chronic toxic effects, the long term degradability of substances will be considered.

2. Prevention and Mitigation:

Prevention of discharges and the

mitigation of their effects are the goals of this rule. The harmful effects of discharges may be reduced in many cases by such actions as warnings to affected water users, containment, treatment, appropriate final disposal of the discharge or debris from a clean-up operation, environmental restoration and monitoring of hazardous substance levels. Appropriate disposal includes compliance with requirements of the Resource Conservation and Recovery Act of 1976, Pub. L. 94-580, 90 Stat. 2795, 42 U.S.C. 6901 (RCRA). Though most of the substances to which these civil penalties apply have been designated as nonremovable, it is anticipated that in many situations partial removal will be possible, particularly when the water body is relatively calm. Such removal

is desirable and is a factor which is considered in the selection of the penalty. Further information concerning mitigation may be found in the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 1510). The "General Pattern of Response Actions" has been specified in 40 CFR Part 1510.53.

Illustrations of the operation of the foregoing scheme for the (bb) penalties are set forth in the preamble to the December 1975, proposal, 40 FR 60004-60005.

3. Administrative Procedures:

A number of commenters pointed out that the regulations with respect to penalty rates as proposed on December 30, 1975, failed to spell out the procedures by which notices of violation will be issued and what if any administrative hearings and related procedures would be available with respect thereto. The Agency has concluded that the suggestion is well taken, and that such procedures should be spelled out in these regulations. Accordingly, §§ 119.6-119.15 set forth these procedures. Because these provisions are purely procedural in nature, they may be promulgated without prior notice of proposal and comment period under the pertinent provision of the Administrative Procedure Act, 5 U.S.C. section 533(b)(A). In accordance with that section, sections 119.6-119.15 are promulgated at this time.

In general, these regulations provide for "informal" adjudication, in the sense that the civil penalties are not required by statute to be determined pursuant to a hearing on the record, and therefore Sections 554, 556, and 557 of the Administrative Procedure Act are not applicable. It is the purpose of these regulations to allow the maximum degree of flexibility in the proceedings relating to the assessment of civil penalties. At the same time, the provisions reflect the need to provide an orderly framework for the process as well as a record of what was done during that process. To a large degree, the provisions in these sections follow the procedures for the assessment of civil penalties for violation of oil pollution prevention regulations issued pursuant to section 311(j) of the Act, at 40 CFR Part 114. These regulations contain somewhat greater detail with respect to hearing procedures, the contents of the record of any such hearing, and the provision for review first by the Regional Administrator and subsequently by the Administrator following a recommended decision by the Presiding Officer.

Section 119.6 provides for the assessment of the penalty and the issuance of a Notice of Violation, including the contents thereof. Among the provisions in the notice is the right of the

alleged violator to present to the Regional Administrator, within 30 days of his receipt of the Notice of Violation, any explanations, defenses, or other relevant information. In addition, he may request a hearing on the matter within 45 days of his receipt of the Notice of Violation. The reason for allowing a somewhat longer period of time for requesting a hearing is to afford the violator an initial opportunity to resolve any disputed issues promptly with the Regional Administrator without recourse to a hearing.

Section 119.7 sets forth the statutory defenses to liability, which are expressly provided in sections 311(b)(2)(B)(iii) and 311(f).

The provisions in §§119.8, 119.9, 119.10, and 119.11 concerning the request for a hearing, the designation of the Presiding Officer, the consolidation of related cases, and a prehearing conference, respectively, are adopted from comparable provisions in 40 CFR Part 114. Section 119.12(a) regarding the conduct of the hearing is also adopted substantially from the comparable provision of 40 CFR Part 114. Subsection (b) of that section enumerates the contents of the record of the hearing, while subsection (c) makes clear that the standards for admission of evidence shall be "liberal and permissive." While the Presiding Officer may exclude evidence which is immaterial, irrelevant, unduly repetitious, would involve undue delay, or which, if hearsay, is not of the sort upon which responsible persons are accustomed to rely. Doubts should be resolved in favor of admitting the evidence.

Section 119.13 provides that following the conclusion of the hearings, the Presiding Officer, who is a lawyer within EPA appointed by the Regional Administrator to preside over the hearings, shall issue a recommended decision, including a recommendation with respect to the amount of the civil penalty. This is reviewed within 15 days by the Regional Administrator who may adopt or modify it. This decision of the Regional Administrator becomes the decision of the Agency unless within 15 days from the date of receipt of such decision there is an appeal to the Administrator.

Section 119.14 sets forth the procedure for an appeal to the Administrator. The Administrator is authorized to request briefs or supplemental information from the Regional Administrator and the person or persons charged with a violation, though he need not do so. Absent such an invitation by the Administrator, there is no right to submit such briefs or supplemental information. Recognizing the heavy demands upon the time of the Administrator, subsection (d) of this section allows him to be assisted by appropriate staff (but not a person who

has had any prior connection with the case) or to delegate his function under this section to an EPA Judicial Officer.

Dated: March 3, 1978.

DOUGLAS M. COSTLE,
Administrator.

Part 119 is added as follows:

Sec.

- 119.1 Applicability.
- 119.2 Abbreviations.
- 119.3 Definitions.
- 119.4 Factors to be Considered in Selection of Penalty Rates.
- 119.5 Determination of Units of Measurement and Rates of Penalty.
- 119.6 Notice of Violation and Penalty.
- 119.7 Third Party Comments.
- 119.8 Defenses.
- 119.9 Request for Hearing.
- 119.10 Presiding Officer.
- 119.11 Consolidation.
- 119.12 Prehearing Conference.
- 119.13 Conduct of Hearing.
- 119.14 Decision.
- 119.15 Appeal to Administrator.

AUTHORITY: Secs. 311 and 501(a), Federal Water Pollution Control Act, (33 U.S.C. 1251 *et seq.*).

§119.1 Applicability.

This regulation applies to substances designated as hazardous under 40 CFR Part 116 in quantities equal to or in excess of those established as harmful under 40 CFR Part 118, except when the owner or operator can show such discharges are made: (1) in compliance with the requirements of sections 301, 302, 304, 306, 307, 318 and 403 and in compliance with an NPDES permit which has been issued pursuant to section 402 of the Act, (2) in compliance with section 404 of the Act or in compliance with a permit issued under the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 *et seq.*), (3) in compliance with approved water treatment plant operations as specified by local, State or Federal regulations pertaining to safe drinking water, (4) pursuant to the label directions for application of a pesticide product registered under 40 CFR Part 162 (FEDERAL REGISTER, Vol 40, No. 129, Part II, pp. 28242-28286, July 3, 1975) by authority of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended by the Federal Environmental Pesticide Control Act of 1972, (Pub. L. 92-516, 86 Stat. 973; Pub. L. 94-140, 89 Stat. 751; 7 U.S.C. 136 *et seq.*), (5) in compliance with the regulations issued under section 3004 of the Resource Conservation and Recovery Act, 90 Stat. 2795, 42 U.S.C. 6901, (6) in compliance with instructions of the On-Scene Coordinator pursuant to 40 CFR 1510 (the National Oil and Hazardous Substance Contingency Plan), or 33 CFR 153.105(c) (Pollution by Oil and Hazardous Substances), or in accordance with applicable section 311(j)(1)(A) regulations,

(7) in compliance with a permit issued under section 165.7 of Title 14 of the State of California Administrative Code, or (8) from a properly functioning inert gas system when used to provide gas to the cargo tanks of a vessel. For the purpose of this Part 119.1, compliance with an NPDES permit has the same meaning as set forth in 40 CFR Part 118.

§119.2 Abbreviations.

lb=pound(s).

kg=kilogram(s).

HQ=harmful quantity as required by section 311(b)(4) and specified in 40 CFR Part 118.

UM=unit of measurement as required by section 311(b)(2)(B)(iv) is that number of pounds designated as a harmful quantity.

ROP=rate of penalty as required by section 311(b)(2)(B)(iv).

P/C/D=physical/chemical/dispersal factor; it is based on whether the substance floats, sinks, mixes, precipitates or is miscible when discharged.

§119.3 Definitions.

As used in this part, all terms shall have the same meaning as in section 311 of the Act and in 40 CFR Parts 116, 117, and 118.

§119.4 Factors to be considered in selection of penalty rate.

(a) In accordance with section 311(b)(2)(B)(iii) of the Act, the owner or operator of any vessel, onshore facility, or offshore facility, from which there is discharged any hazardous substance which has not been determined by the Administrator to be actually removable under section 311(b)(2)(B)(i) of the Act shall be liable, subject to certain defenses enumerated in §119.8 of this section, to the United States for either one or the other of the following civil penalties, the determination of which shall be at the discretion of the Regional Administrator, subject to review by the Administrator as hereinafter provided:

(1) A penalty based on the toxicity, degradability and dispersal characteristics of the substance, but not less than \$500 nor more than \$5,000; or

(2) A penalty determined by the number of units of measurement discharged multiplied by the amount established for such unit under Section 119.5 of this part, but such penalty shall not be more than \$5,000,000 in the case of a discharge from a vessel and \$500,000 in the case of a discharge from an onshore or offshore facility.

(b) In determining which of the two alternative penalties set forth in the preceding subsection (a) of this Section shall be applied, the Regional Administrator shall consider the nature and circumstances surrounding the discharge, including each of the following factors:

(1) The size of the discharge;
(2) The culpability of the owner or operator (including but not limited to any officer, employee, contractor, agent, or servant of such owner or operator);

(3) The nature, extent, and degree of success of any efforts by such owner or operator to minimize or mitigate the effects of such discharge, including but not limited to any containment or removal of the substance or substances; and

(4) Such other factors as the Regional Administrator deems appropriate under the circumstances.

§ 119.5 Determination of units of measurement and rates of penalty.

In accordance with section 311(b)(2)(B)(iv) of the Act, the base penalty rate is determined for each category to be \$1,000 per unit of measurement. The penalty rate for each UM is \$1,000 times the P/C/D factor of the substance. The penalty for the discharge of one pound of a hazardous substance is \$1,000 times the P/C/D factor divided by UM. The penalty rate for a discharge is thus obtained by the formula:

\$1,000 divided by unit of measurement times P/C/D factor times pounds discharged.

For discharges of mixtures or solutions, the rate of penalty will be the sum of the rates for individual hazardous components if the quantity discharged equals or exceeds the harmful quantity for the mixture (determined by procedures set forth in 40 CFR Part 118). For discharges in which the weights of the individual component of a mixture are unknown, the rate of penalty will be that for the most toxic component of the mixture. The following table (Table 119.5) lists each designated hazardous substance (40 CFR Part 116) determined to be not actually removable (40 CFR Part 117) on the same line with the assigned EPA hazard category, the corresponding unit of measurement (and harmful quantity), the assigned physical/chemical/dispersal (P/C/D) adjustment factor and the rate of penalty in

dollars per unit of measurement. For convenience and ease of comparison, the units of measurement have been used to calculate the penalty rates in dollars per pound as shown in the right hand column of Table 119.5.

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances

Material	Category	µM in pounds (kilograms)	P/C/D factor	ROP (dollars per µM)	Approximate ROP (dollars per pound)
Acetaldehyde.....	C	1,000 (454)	1.0	1,000	1.00
Acetic acid.....	C	1,000 (454)	1.0	1,000	1.00
Acetic anhydride.....	C	1,000 (454)	.75	750	.75
Acetone cyanohydrin.....	A	10 (4.54)	.88	880	88.00
Acetyl bromide.....	D	5,000 (2,270)	.75	750	.15
Acetyl chloride.....	D	5,000 (2,270)	.75	750	.15
Acrolein.....	X	1 (0.454)	.88	880	880.00
Acrylonitrile.....	B	100 (45.4)	.88	880	8.80
Aldrin.....	X	1 (0.454)	.36	360	360.00
Allyl alcohol.....	B	100 (45.4)	1.0	1,000	10.00
Aluminum sulfate.....	D	5,000 (2,270)	.62	620	.12
Ammonia.....	B	100 (45.4)	.88	880	8.80
Ammonium acetate.....	D	5,000 (2,270)	.49	490	.10
Ammonium benzoate.....	D	5,000 (2,270)	.75	750	.15
Ammonium bicarbonate.....	D	5,000 (2,270)	.75	750	.15
Ammonium bichromate.....	C	1,000 (454)	.75	750	.75
Ammonium bifluoride.....	D	5,000 (2,270)	.75	750	.15
Ammonium bisulfite.....	D	5,000 (2,270)	.49	490	.10
Ammonium carbamate.....	D	5,000 (2,270)	.75	750	.15
Ammonium carbonate.....	D	5,000 (2,270)	.49	490	.10
Ammonium chloride.....	D	5,000 (2,270)	.75	750	.15
Ammonium chromate.....	C	1,000 (454)	.75	750	.75
Ammonium citrate.....	D	5,000 (2,270)	.75	750	.15
Ammonium fluoborate.....	D	5,000 (2,270)	.75	750	.15
Ammonium fluoride.....	D	5,000 (2,270)	.49	490	.10
Ammonium hydroxide.....	C	1,000 (454)	1.0	1,000	1.00
Ammonium oxalate.....	D	5,000 (2,270)	.75	750	.15
Ammonium silicofluoride.....	C	1,000 (454)	.75	750	.75
Ammonium sulfamate.....	D	5,000 (2,270)	.49	490	.10
Ammonium sulfide.....	D	5,000 (2,270)	.75	750	.15
Ammonium sulfite.....	D	5,000 (2,270)	.75	750	.15
Ammonium tartrate.....	D	5,000 (2,270)	.75	750	.15
Ammonium thiocyanate.....	D	5,000 (2,270)	.49	490	.10
Ammonium thiosulfate.....	D	5,000 (2,270)	.49	490	.10
Aniline.....	C	1,000 (454)	.75	750	.75
Antimony pentachloride.....	C	1,000 (454)	.62	620	.62

RULES AND REGULATIONS

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances—
Continued

Material	Category	μM in pounds (kilograms)	P/C/D factor	ROP (dollars per μM)	Approximate ROP (dollars per pound)
Antimony potassium tartrate.....	C	1,000 (454)	.75	750	.75
Antimony tribromide.....	C	1,000 (454)	.62	620	.62
Antimony trichloride.....	C	1,000 (454)	.62	620	.62
Antimony trifluoride.....	C	1,000 (454)	.49	490	.49
Antimony trioxide.....	D	5,000 (2,270)	.36	360	.07
Arsenic disulfide.....	D	5,000 (2,270)	.36	360	.07
Arsenic pentoxide.....	D	5,000 (2,270)	.49	490	.10
Arsenic trichloride.....	D	5,000 (2,270)	.62	620	.12
Arsenic trioxide.....	D	5,000 (2,270)	.62	620	.12
Arsenic trisulfide.....	D	5,000 (2,270)	.36	360	.07
Barium cyanide.....	A	10 (4.54)	.75	750	75.00
Benzoic acid.....	D	5,000 (2,270)	.75	750	.15
Benzonitrile.....	C	1,000 (454)	.75	750	.75
Benzoyl chloride.....	C	1,000 (454)	.75	750	.75
Benzyl chloride.....	B	100 (45.4)	.36	360	3.60
Beryllium chloride.....	D	5,000 (2,270)	.75	750	.15
Beryllium fluoride.....	D	5,000 (2,270)	.49	490	.10
Beryllium nitrate.....	D	5,000 (2,270)	.75	750	.15
Butyl acetate.....	D	5,000 (2,270)	.88	880	.18
Butylamine.....	C	1,000 (454)	1.0	1,000	1.00
Butyric acid.....	D	5,000 (2,270)	1.0	1,000	.20
Cadmium acetate.....	B	100 (45.4)	.75	750	7.50
Cadmium bromide.....	B	100 (45.4)	.75	750	7.50
Cadmium chloride.....	B	100 (45.4)	.49	1,000	4.90
Calcium arsenate.....	C	1,000 (454)	.36	360	.36
Calcium arsenite.....	C	1,000 (454)	.36	360	.36
Calcium carbide.....	D	5,000 (2,270)	.62	620	.12
Calcium chromate.....	C	1,000 (454)	.75	750	.75
Calcium cyanide.....	A	10 (4.54)	.75	750	75.00
Calcium dodecylbenzenesulfonate.....	C	1,000 (454)	.75	750	.75
Calcium hydroxide.....	D	5,000 (2,270)	.75	750	.15
Calcium hypochlorite.....	A	10 (4.54)	.75	750	75.00
Calcium oxide.....	D	5,000 (2,270)	.75	750	.15
Captan.....	A	10 (4.54)	.36	360	36.00
Carbaryl.....	B	100 (45.4)	.36	360	3.60
Carbon disulfide.....	D	5,000 (2,270)	.75	750	.15
Chlordane.....	X	1 (0.454)	.36	360	360.00
Chlorine.....	A	10 (4.54)	.10	100	10.00
Chlorobenzene.....	B	100 (45.4)	.36	360	3.60
Chloroform.....	D	5,000 (2,270)	.75	750	.15
Chlorpyrifos.....	X	1 (0.454)	.36	360	360.00
Chlorosulfonic acid.....	C	1,000 (454)	.75	750	.75
Chromic acetate.....	C	1,000 (454)	.75	750	.75
Chromic acid.....	C	1,000 (454)	.75	750	.75
Chromic sulfate.....	C	1,000 (454)	.75	750	.75
Chromous chloride.....	C	1,000 (454)	.75	750	.75
Cobaltous bromide.....	C	1,000 (454)	.49	490	.49
Cobaltous formate.....	C	1,000 (454)	.75	750	.75

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances—Continued

Material	Category	μM in pounds (kilograms)	P/C/D factor	ROP (dollars per μM)	Approximate ROP (dollars per pound)
Cobaltous sulfamate.....	C	1,000 (454)	.75	750	.75
Coumaphos.....	A	10 (4.54)	.36	360	36.00
Cresol.....	C	1,000 (454)	.75	750	.75
Cupric acetate.....	B	100 (45.4)	.75	750	7.50
Cupric acetoarsenite.....	B	100 (45.4)	.36	360	3.60
Cupric chloride.....	A	10 (4.54)	.75	750	75.00
Cupric nitrate.....	B	100 (45.4)	.49	490	4.90
Cupric oxalate.....	B	100 (45.4)	.36	360	3.60
Cupric sulfate.....	A	10 (4.54)	.75	750	75.00
Cupric sulfate ammoniated.....	B	100 (45.4)	.75	750	7.50
Cupric tartrate.....	B	100 (45.4)	.36	360	3.60
Cyanogen chloride.....	A	10 (4.54)	.75	750	75.00
2,4-D acid.....	B	100 (45.4)	.36	360	3.60
2,4-D esters.....	B	100 (45.4)	.36	360	3.60
DDT.....	X	1 (0.454)	.36	360	360.00
Diazinon.....	X	1 (0.454)	.36	360	360.00
Dicamba.....	C	1,000 (454)	.75	750	.75
Dichlobenil.....	C	1,000 (454)	.36	360	.36
Dichlone.....	X	1 (0.454)	.36	360	360.00
2,2-Dichloropropionic acid.....	D	5,000 (2,270)	.75	750	.15
Dichlorvos.....	A	10 (4.54)	.75	750	75.00
Dieldrin.....	X	1 (0.454)	.36	360	360.00
Diethylamine.....	C	1,000 (454)	1.0	1,000	1.00
Dimethylamine.....	C	1,000 (454)	.88	880	.88
Dinitrobenzene.....	C	1,000 (454)	.36	360	.36
Dinitrophenol.....	C	1,000 (454)	.75	750	.75
Diquat.....	C	1,000 (454)	.75	750	.75
Disulfoton.....	X	1 (0.454)	.36	360	360.00
Diuron.....	B	100 (45.4)	.36	360	3.60
Dodecylbenzenesulfonic acid.....	C	1,000 (454)	.75	750	.75
Endosulfan.....	X	1 (0.454)	.36	360	360.00
Endrin.....	X	1 (0.454)	.36	360	360.00
Ethion.....	A	10 (4.54)	.36	360	36.00
Ethylenediamine.....	C	1,000 (454)	.88	880	.88
EDTA.....	D	5,000 (2,270)	.36	360	.07
Ferric ammonium citrate.....	C	1,000 (454)	.75	750	.75
Ferric ammonium oxalate.....	C	1,000 (454)	.75	750	.75
Ferric chloride.....	C	1,000 (454)	.75	750	.75
Ferric fluoride.....	B	100 (45.4)	.36	360	3.60
Ferric nitrate.....	C	1,000 (454)	.49	490	.49
Ferric sulfate.....	C	1,000 (454)	.36	360	.36
Ferrous ammonium sulfate.....	C	1,000 (454)	.75	750	.75
Ferrous chloride.....	B	100 (45.4)	.75	750	7.50
Ferrous sulfate.....	C	1,000 (454)	.36	360	.36
Formaldehyde.....	C	1,000 (454)	.75	750	.75
Formic acid.....	D	5,000 (2,270)	1.0	1,000	.20
Fumaric acid.....	D	5,000 (2,270)	.75	750	.15
Furfural.....	C	1,000 (454)	.75	750	.75
Guthion.....	X	1 (0.454)	.36	360	360.00
Heptachlor.....	X	1 (0.454)	.36	360	360.00
Hydrochloric acid.....	D	5,000 (2,270)	.75	750	.15
Hydrofluoric acid.....	D	5,000 (2,270)	1.0	1,000	.20
Hydrogen cyanide.....	A	10 (4.54)	1.0	1,000	100.00
Isopropanolamine.....	C	1,000 (454)	.75	750	.75
dodecylbenzenesulfonate.....	C	1,000 (454)	.75	750	.75
Kelthane.....	D	5,000 (2,270)	.36	360	.07
Lead acetate.....	D	5,000 (2,270)	.62	620	.12

RULES AND REGULATIONS

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances—
Continued

Material	Category	μM in pounds (kilograms)	P/C/D factor	ROP (dollars per μM)	Approximate ROP (dollars per pound)
Lead arsenate.....	D	5,000 (2,270)	.36	360	.07
Lead chloride.....	D	5,000 (2,270)	.75	750	.15
Lead fluoborate.....	D	5,000 (2,270)	.62	620	.12
Lead fluoride.....	C	1,000 (454)	.36	360	.36
Lead iodide.....	D	5,000 (2,270)	.36	360	.07
Lead nitrate.....	D	5,000 (2,270)	.75	750	.15
Lead stearate.....	D	5,000 (2,270)	.36	360	.07
Lead sulfate.....	D	5,000 (2,270)	.36	360	.07
Lead sulfide.....	D	5,000 (2,270)	.36	360	.07
Lead thiocyanate.....	D	5,000 (2,270)	.75	750	.15
Lindane.....	X	1 (0.454)	.36	360	360.00
Lithium chromate.....	C	1,000 (454)	.49	490	.49
Malathion.....	A	10 (4.54)	.36	360	36.00
Maleic acid.....	D	5,000 (2,270)	.49	490	.10
Maleic anhydride.....	D	5,000 (2,270)	.49	490	.10
Mercuric cyanide.....	X	1 (0.454)	.75	750	750.00
Mercuric nitrate.....	A	10 (4.54)	.75	750	75.00
Mercuric sulfate.....	A	10 (4.54)	.62	620	62.00
Mercuric thiocyanate.....	A	10 (4.54)	.36	360	36.00
Mercurous nitrate.....	A	10 (4.54)	.62	620	62.00
Methoxychlor.....	X	1 (0.454)	.36	360	360.00
Methyl mercaptan.....	B	100 (45.4)	.88	880	8.80
Methyl parathion.....	B	100 (45.4)	.36	360	3.60
Mevinphos.....	X	1 (0.454)	1.0	1,000	1,000.00
Mexacarbate.....	C	1,000 (454)	.36	360	.36
Monoethylamine.....	C	1,000 (454)	1.0	1,000	1.00
Monomethylamine.....	C	1,000 (454)	1.0	1,000	1.00
Naled.....	A	10 (4.54)	.36	360	36.00
Naphthalene.....	D	5,000 (2,270)	.36	360	.07
Naphthenic acid.....	B	100 (45.4)	.75	750	7.50
Nickel ammonium sulfate.....	D	5,000 (2,270)	.75	750	.15
Nickel chloride.....	D	5,000 (2,270)	.75	750	.15
Nickel hydroxide.....	C	1,000 (454)	.36	360	.36
Nickel nitrate.....	D	5,000 (2,270)	.49	490	.10
Nickel sulfate.....	D	5,000 (2,270)	.75	750	.15
Nitric acid.....	C	1,000 (454)	1.0	1,000	1.00
Nitrobenzene.....	C	1,000 (454)	.75	750	.75
Nitrogen dioxide.....	C	1,000 (454)	1.0	1,000	1.00
Nitrophenol.....	C	1,000 (454)	.75	750	.75
Paraformaldehyde.....	C	1,000 (454)	.75	750	.75
Parathion.....	X	1 (0.454)	.36	360	360.00
Pentachlorophenol.....	A	10 (4.54)	.36	360	36.00
Phenol.....	C	1,000 (454)	.75	750	.75
Phosgene.....	D	5,000 (2,270)	.75	750	.15
Phosphoric acid.....	D	5,000 (2,270)	1.0	1,000	.20
Phosphorus.....	X	1 (0.454)	.36	360	360.00

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances—Continued

Material	Category	μ M in pounds (kilograms)	P/C/D factor	ROP (dollars per μ M)	Approximate ROP (dollars per pound)
Phosphorus oxychloride	D	5,000 (2,270)	.75	750	.15
Phosphorus pentasulfide	C	1,000 (454)	.75	750	.15
Phosphorus trichloride	D	5,000 (2,270)	.75	750	.15
Polychlorinated biphenyls	A	10 (4.54)	.36	360	36.00
Potassium arsenate	C	1,000 (454)	.75	750	.75
Potassium arsenite	C	1,000 (454)	.75	750	.75
Potassium bichromate	C	1,000 (454)	.75	750	.75
Potassium chromate	C	1,000 (454)	.75	750	.75
Potassium cyanide	A	10 (4.54)	.75	750	75.00
Potassium hydroxide	C	1,000 (454)	.49	490	.49
Potassium permanganate	B	100 (45.4)	.75	750	7.50
Propionic acid	D	5,000 (2,270)	1.0	1,000	.20
Propionic anhydride	D	5,000 (2,270)	1.0	1,000	.20
Pyrethrins	C	1,000 (454)	.36	360	.36
Quinoline	C	1,000 (454)	.75	750	.75
Resorcinol	D	5,000 (2,270)	.49	490	.49
Selenium oxide	C	1,000 (454)	.75	750	.75
Sodium	C	1,000 (454)	.49	490	.49
Sodium arsenate	C	1,000 (454)	.75	750	.75
Sodium arsenite	C	1,000 (454)	.75	750	.75
Sodium bichromate	C	1,000 (454)	.49	490	.49
Sodium bifluoride	D	5,000 (2,270)	.75	750	.15
Sodium bisulfite	D	5,000 (2,270)	.75	750	.15
Sodium chromate	C	1,000 (454)	.75	750	.75
Sodium cyanide	A	10 (4.54)	.75	750	75.00
Sodium dodecylbenzenesulfonate	C	1,000 (454)	.75	750	.75
Sodium fluoride	D	5,000 (2,270)	.75	750	.15
Sodium hydrosulfide	D	5,000 (2,270)	.75	750	.15
Sodium hydroxide	C	1,000 (454)	.49	490	.49
Sodium hypochlorite	B	100 (45.4)	.75	750	7.50
Sodium methylate	C	1,000 (454)	.49	490	.49
Sodium nitrite	B	1,000 (45.4)	.75	750	7.50
Sodium phosphate, dibasic	D	5,000 (2,270)	.75	750	.15
Sodium phosphate, tribasic	D	5,000 (2,270)	.75	750	.15
Sodium selenite	C	1,000 (454)	.75	750	.75
Strontium chromate	C	1,000 (454)	.75	750	.75
Strychnine	A	10 (4.54)	.36	360	36.00
Sulfuric acid	C	1,000 (454)	1.0	1,000	1.00
Sulfur monochloride	C	1,000 (454)	.75	750	.75
2,4,5-T acid	B	100 (45.4)	.36	360	3.60
2,4,5-T esters	B	100 (45.4)	.36	360	3.60
TDE	X	1 (0.454)	.36	360	360.00
Tetraethyl lead	B	100 (45.4)	.36	360	3.60
Tetraethyl pyrophosphate	B	100 (45.4)	1.0	1,000	10.00
Toxaphene	X	1 (0.454)	.36	360	360.00
Trichlorfon	X	1 (0.454)	.75	750	750.00
Trichlorophenol	A	10 (4.54)	.36	360	36.00
Triethanolamine					
dodecylbenzenesulfonate	C	1,000 (454)	.75	750	.75
Triethylamine	D	5,000 (2,270)	.88	880	.18
Trimethylamine	C	1,000 (454)	.88	880	.88
Uranyl acetate	D	5,000 (2,270)	.75	750	.15

TABLE 119.5.—Rates of penalty and units of measurement for hazardous substances—
Continued

Material	Category	µM in pounds (kilograms)	P/C/D factor	ROP (dollars per µM)	Approximate ROP (dollars per pound)
Uranyl nitrate.....	D	5,000 (2,270)	.75	750	.15
Vanadium pentoxide.....	C	1,000 (454)	.75	750	.75
Vanadyl sulfate.....	C	1,000 (454)	.75	750	.75
Vinyl acetate.....	C	1,000 (454)	.88	880	.88
Xylenol.....	C	1,000 (454)	.36	360	.36
Zinc acetate.....	C	1,000 (454)	.75	750	.75
Zinc ammonium chloride.....	D	5,000 (2,270)	.75	750	.15
Zinc borate.....	C	1,000 (454)	.75	750	.75
Zinc bromide.....	D	5,000 (2,270)	.49	490	.10
Zinc carbonate.....	C	1,000 (454)	.36	360	.36
Zinc chloride.....	D	5,000 (2,270)	.49	490	.10
Zinc cyanide.....	A	10 (4.54)	.36	360	36.00
Zinc fluoride.....	C	1,000 (454)	.36	360	.36
Zinc formate.....	C	1,000 (454)	.75	750	.75
Zinc hydrosulfite.....	C	1,000 (454)	.75	750	.75
Zinc nitrate.....	D	5,000 (2,270)	.49	490	.10
Zinc phenolsulfonate.....	D	5,000 (2,270)	.75	750	.15
Zinc phosphide.....	C	1,000 (454)	.36	360	.36
Zinc silicofluoride.....	D	5,000 (2,270)	.75	750	.15
Zinc sulfate.....	C	1,000 (454)	.49	490	.49
Zirconium nitrate.....	D	5,000 (2,270)	.75	750	.15
Zirconium potassium fluoride.....	D	5,000 (2,270)	.75	750	.15
Zirconium sulfate.....	D	5,000 (2,270)	.62	620	.12
Zirconium tetrachloride.....	D	5,000 (2,270)	.75	750	.15

§ 119.6 Notice of violation and penalty.

Following a determination by the Regional Administrator as to which of the two alternative penalties set forth in § 119.4 shall be assessed against the owner or operator, the Regional Administrator shall proceed to determine the amount of such penalty in accordance with the provisions of said § 119.4, and shall send a Notice of Violation to each person against whom such penalty is assessed. Such Notice of Violation shall specify the following:

- Date of issuance;
- Nature of the violation, including the substance or substances discharged, the date(s) and place of the discharge, and the quantity of each discharge;
- A citation to the pertinent section of the Act and regulations under which the violation is charged;

(d) A citation to the pertinent section of the act and regulations under which the civil penalty has been assessed;

- The amount of the civil penalty;
- The right of the alleged violator to present to the Regional Administrator, within thirty (30) days of his receipt of the Notice of Violation, written explanations, information or any materials in answer to the charges (including any of the defenses set forth in section 119.8 hereof) or in mitigation of the penalty;
- Manner in which the payment of any money may be paid to the United States;
- Right to request a hearing within forty-five (45) days of his receipt of the Notice of Violation; and
- The procedures for requesting a hearing including the right to be represented by counsel.

§ 119.7 Third party comments.

The Regional Administrator shall send a copy of the Notice of Violation to the State in which the discharge occurred and to any other person who he has reason to believe would be interested in the proceeding. The State and any interested person may submit written comments within thirty (30) days of receipt of the notice.

§ 119.8 Defenses.

It shall be a defense to any liability for any penalty assessed pursuant to section 119.4 through 119.6 hereof if the alleged violator establishes by a preponderance of the evidence that the discharge for which the penalty was assessed was caused solely by one or more of the following:

- An act of God,
- An act of war,
- Negligence on the part of the United States Government, or
- An act or omission of a third party without regard to whether or not such act or omission was or was not negligent.

§ 119.9 Request for hearing.

Within forty-five (45) days of the date of receipt of a Notice of Violation, the person named in the Notice may request a hearing by submitting a written request signed by or on behalf of such person by a duly authorized officer, director, agent, or attorney-in-fact, to the Regional Administrator.

(a) Requests for hearings shall:

- State the name and address of the person requesting the hearing;
- Enclose a copy of the Notice of Violation; and
- State with particularity the issues to be raised by such person at the hearing.

(b) After a request for hearing which complies with the requirements of subsection (a) of this section has been filed, a hearing shall be scheduled for the earliest practicable date.

(c) Extensions of the time for the commencement of the hearing may be granted for good cause shown.

§ 119.10 Presiding officer.

The hearing shall be conducted by the Presiding Officer. The Regional

Administrator may designate any attorney in the Environmental Protection Agency to act as the Presiding Officer. No person shall serve as Presiding Officer who has any prior connection with the case including without limitation the performance of investigative or prosecuting functions. The Presiding Officer appointed shall have the full authority to conduct the hearing, decide issues, and to prepare a recommended decision in accordance with § 119.14.

§ 119.11 Consolidation.

The Presiding Officer may, in his discretion, order consolidation of any hearings held under this Part and arising within one Region whenever he determines that consolidation will expedite or simplify the consideration of the issues presented. The Administrator may, in his discretion, order consolidation, and designate one Region to be responsible for the conduct of any hearings held under this Part which arise in different Regions whenever he determines that consolidation will expedite or simplify the consideration of the issues presented. Consolidation shall not affect the right of any person to raise issues that could have been raised if consolidation had not occurred. At the conclusion of the hearing the Presiding Officer shall render a separate recommended decision for each separate civil penalty case.

§ 119.12 Prehearing conference.

The Presiding Officer may hold one or more prehearing conferences and may issue a hearing agenda which may include, without limitation, decisions with regard to any or all of the following:

- (a) Stipulations and admissions;
- (b) Disputed issues of fact;
- (c) Hearing procedures including the names of witnesses, scheduling, identification and admission of documentary evidence, and the time allotted for oral arguments; and
- (d) Any other matter which may expedite the hearing or aid in disposition of any issues raised therein.

§ 119.13 Conduct of hearing.

(a) The hearing shall be held, where feasible, in the general location of the facility where the alleged violation occurred or as agreed to by EPA and the person charged. The Presiding Officer shall have the duty to conduct a fair and impartial hearing, to take action to avoid unnecessary delay in the disposition of proceedings, and to maintain order. The person charged with the violation may offer relevant facts, statements, explanations, documents, testimony and other items in defense to the charges, or which may bear

upon the penalty to be assessed. The EPA or appropriate Agency personnel shall have the opportunity to offer facts, statements, explanations, documents, testimony, or other material in order for the Presiding Officer to be fully informed. The person charged with the violation shall be informed in writing of the decision of the Presiding Officer and shall be advised of his right to appeal.

(b) A record shall be kept of the hearing, which shall include at least the following:

- (1) The Notice of Violation;
 - (2) Any materials and information relied upon by the Regional Administrator in issuing the Notice of Violation and in determining and assessing the civil penalty or penalties at issue;
 - (3) Any materials submitted by the alleged violator in defense or opposition to the penalty;
 - (4) A verbatim transcript of the testimony of any witness presented at the hearing, which testimony shall be under oath;
 - (5) Any other materials offered by any party to the hearing and admitted by the Presiding Officer; and
 - (6) The recommended decision of the Presiding Officer described in § 119.14.
- (c) The standards for admission of evidence shall be liberal and permissive. The Presiding Officer may exclude evidence which is immaterial, irrelevant, unduly repetitious or cumulative, or would involve undue delay or which, if hearsay, is not of the sort upon which responsible persons are accustomed to rely. In general, doubtful situations should be resolved in favor of admitting the evidence.

§ 119.14 Decision.

(a) Within thirty (30) days after the conclusion of the hearings, the Presiding Officer shall issue a recommended decision including a recommendation with respect to the amount of the civil penalty. In his recommendation concerning the civil penalty the Presiding Officer shall consider the factors set forth in §§ 119.4 through 119.8. His recommended decision shall contain appropriate findings of fact and conclusions such as to set forth clearly the basis for the recommended decision. A copy of the Presiding Officer's recommended decision shall be sent to the person charged in the Notice of Violation, and to the Regional Administrator.

(b) Within fifteen (15) days of the issuance of the recommended decision of the Presiding Officer the Regional Administrator shall either adopt or modify the recommended decision of the Presiding Officer, in writing, stating his reasons for any modification. The Regional Administrator shall con-

sider only information contained in the record established pursuant to § 119.13(b) of this Part. The recommended decision as thus adopted or modified (hereinafter the "Regional Administrator's decision") shall be sent to the person charged in the Notice of Violation, and shall become the final decision of the Environmental Protection Agency unless within fifteen (15) days from the date of receipt of such decision, the person assessed the penalty appeals the decision to the Administrator, or unless the Administrator shall have stayed the effectiveness of the decision pending review on his own motion.

§ 119.15 Appeal to administrator.

(a) The person assessed a penalty in the Regional Administrator's decision or any interested person who participated in the hearing shall have the right to appeal an adverse decision to the Administrator upon filing a written Notice of Appeal in the form required by paragraph (b) of this section within fifteen (15) days of the date of receipt of the Presiding Officer's decision.

(b) The Notice of Appeal shall be filed with the Regional Administrator and the Administrator, and shall:

- (1) State the name and address of the person filing the Notice of Appeal;
- (2) Contain a concise statement of the facts on which the person relies;
- (3) Contain a concise statement of the legal basis on which the person relies; and
- (4) Contain a concise statement setting forth the action which the person proposes that the Administrator take.

(c) The Administrator, after a Notice of Appeal in proper form has been filed, shall render a decision with respect to the appeal promptly. He may, though he need not, invite briefs or supplemental information from the Regional Administrator and the person(s) charged with the violation. In rendering his decision, the Administrator may adopt, modify, or set aside the decision of the Regional Administrator in any respect and shall include in his decision a concise statement of the basis thereof. The decision of the Administrator on appeal shall be effective when rendered.

(d) The Administrator may be assisted in his functions under this Section by such staff as he deems appropriate (but not a person who has any prior connection with the case including without limitation the performance of any investigative or prosecuting functions), and he may delegate his authority to act under this section to a judicial officer within the Environmental Protection Agency.

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